

What is claimed is:

1. A method comprising:

having a router process a connection request from a first computer having multi-channel reliable network hardware;

5 having said router send an acknowledgment for said connection request to said first computer so that a direct connection is established between said first computer and a second computer having multi-channel reliable network hardware; and

10 having said router select said second computer from a group of computers having multi-channel reliable network hardware according to information in said connection request, said information comprising opaque data.

2. The method of claim 1, wherein said router processes said connection request within or above a transport layer only.

3. The method of claim 1, further comprising:

15 having said router filter said connection request according to a predefined policy.

4. The method of claim 1, further comprising:

20 having said router select said second computer from a group of computers having multi-channel reliable network hardware according to load-balancing considerations.

5. A method comprising:

25 enabling a connection between a first computer having multi-channel reliable network hardware and a second computer having multi-channel reliable network hardware so that upstream traffic from said first computer to said second computer is communicated over said connection via a router and downstream traffic from said second computer to said first computer is communicated directly over said connection.

6. The method of claim 5, further comprising:

30 having said router process said upstream traffic within or above a transport layer only.

7. The method of claim 5, further comprising:

having said router filter said upstream traffic according to a predefined policy.

8. The method of claim 5, further comprising:

having said router gather information on said upstream traffic.

9. The method of claim 5, further comprising:

having said router select said second computer from a group of computers having multi-channel reliable network hardware according to information in said upstream traffic.

10. The method of claim 5, further comprising:

having said router select said second computer from a group of computers having multi-channel reliable network hardware according to load-balancing considerations.

11. A method comprising:

having a router process traffic over a connection from a first computer to a second computer, both computers having multi-channel reliable network hardware;

enabling said second computer to directly transfer data to said first computer over said connection using remote direct memory access messages; and

having said router process non-remote-direct-memory-access traffic from said second computer to said first computer over said connection.

12. The method of claim 11, wherein said router processes said traffic within or above a transport layer only.

13. The method of claim 11, further comprising:

having said router filter said traffic according to a predefined policy.

14. The method of claim 11, further comprising:

having said router gather information on said traffic.

15. The method of claim 11, further comprising:

having said router select said second computer from a group of computers having multi-channel reliable network hardware according to information in said traffic.

16.The method of claim 11, further comprising:

having said router select said second computer from a group of computers having multi-channel reliable network hardware according to load-balancing considerations.

5 17.A method comprising:

having a router transfer transaction traffic between a first computer and a second computer while processing only a portion of said transaction traffic, both computers having multi-channel reliable network hardware.

10 18.The method of claim 17, wherein said portion comprises commands and command parameters of said transaction traffic.

19.The method of claim 17, wherein said portion comprises a connection request from said first computer to said second computer.

20.The method of claim 17, wherein said portion comprises upstream traffic from said first computer to said second computer.

15 21.The method of claim 17, wherein said processing comprises filtering said portion according to a predefined policy.

22.The method of claim 17, wherein said processing comprises gathering information about said portion.

23.The method of claim 17, further comprising:

20 having said router select said second computer from a group of computers having multi-channel reliable network hardware according to information in said portion.

24.The method of claim 17, further comprising:

25 having said router select said second computer from a group of computers having multi-channel reliable network hardware according to load-balancing considerations.

25.A method comprising:

converting a session of packet-oriented traffic into transactions comprising remote direct memory access messages.

30 26.The method of claim 25, wherein said packet-oriented traffic is transport control protocol traffic.

27. The method of claim 25, wherein said converting comprises:  
terminating said session of packet-oriented traffic;  
extracting data from said session; and  
sending said data as remote direct memory access messages to memory  
of at least one remote node having multi-channel reliable network hardware.
28. The method of claim 25, further comprising:  
filtering said traffic according to a predefined policy.
29. The method of claim 25, further comprising:  
gathering information about said traffic according to a predefined  
policy.
30. The method of claim 25, further comprising:  
routing said transactions according to information in said traffic.
31. The method of claim 25, further comprising:  
routing said transactions according to load-balancing considerations.
32. A system comprising:  
one or more routers able to process transactions between two or more  
computers and to direct said transactions among said computers according to  
information in said transactions, said computers having multi-channel reliable  
network hardware.
33. The system of claim 32, wherein said routers are arranged in a cascaded  
manner.
34. The system of claim 32, wherein one or more of said routers is able to direct  
said transactions among said routers according to information in said  
transactions.
35. The system of claim 32, wherein one or more of said routers is able to direct  
said transactions among said computers according to load-balancing  
considerations.
36. The system of claim 32, wherein one or more of said routers is able to direct  
said transactions among said routers according to load-balancing  
considerations.
37. The system of claim 32, wherein one or more of said routers is able to filter  
said transactions according to a predefined policy.

38.The system of claim 32, wherein one or more of said routers is able to gather information on said transactions.

39.The system of claim 32, wherein said multi-channel reliable network hardware is selected from a group including: virtual interface hardware, Infiniband hardware, Fiber-Channel hardware, small computer system interface hardware, asynchronous transfer mode hardware, expanded Ethernet hardware, and remote direct memory access over transport control protocol over internet protocol network hardware.

40.The system of claim 32, wherein said transactions are from a group including: database transactions, remote procedure call transactions, storage-access transactions, file-access transactions, and socket transactions.

41.A system comprising:

one or more server computers having multi-channel reliable network hardware; and

a proxy able to receive packet-oriented traffic from a client computer, to convert a session of said packet-oriented traffic into transactions comprising remote direct memory access messages, and to send said transactions to one of said server computers.

42.The system of claim 41, wherein said packet-oriented traffic is transport control protocol traffic.

43.The system of claim 41, further comprising:

one or more routers able to process said transactions within or above a transport layer only.

44.The system of claim 43, wherein one or more of said routers is able to direct said transactions among said server computers according to information in said transactions.

45.The system of claim 43, wherein one or more of said routers is able to direct said transactions among said routers according to information in said transactions.

46.The system of claim 43, wherein one or more of said routers is able to direct said transactions among said computers according to load-balancing considerations.

47. The system of claim 43, wherein one or more of said routers is able to direct said transactions among said routers according to load-balancing considerations.

48. The system of claim 43, wherein one or more of said routers is able to filter said transactions according to a predefined policy.

49. The system of claim 43, wherein one or more of said routers is able to gather information on said transactions.

50. The system of claim 41, wherein said multi-channel reliable network hardware is selected from a group including: virtual interface hardware, Infiniband hardware, Fiber-Channel hardware, small computer system interface hardware, asynchronous transfer mode hardware, expanded Ethernet hardware, and remote direct memory access over transport control protocol over internet protocol network hardware.

51. The system of claim 41, wherein said transactions are from a group including: database transactions, remote procedure call transactions, storage-access transactions, file-access transactions, and socket transactions.